

What is claimed is:

~~1. An isolated cDNA encoding a protein having the amino acid sequence of SEQ ID NO:1~~

2. An isolated cDNA selected from:

a) a nucleic acid sequence of SEQ ID NO:2 or the complement thereof;

b) a fragment of SEQ ID NO:2 selected from SEQ ID NOs:3-10 or the complement thereof; and

~~c) a variant of SEQ ID NO:2 selected from SEQ ID NOs:11-13.~~

3. A composition comprising the cDNA or the complement of the cDNA of claim 1.

4. A vector comprising the cDNA of claim 1.

5. A host cell comprising the vector of claim 4.

6. A method for using a cDNA to produce a protein, the method comprising:

a) culturing the host cell of claim 5 under conditions for protein expression; and

b) recovering the protein from the host cell culture.

7. A method for using a cDNA to detect expression of a nucleic acid in a sample comprising:

a) hybridizing the composition of claim 3 to nucleic acids of the sample, thereby forming hybridization complexes; and

b) comparing hybridization complex formation with a standard, wherein the comparison indicates expression of the cDNA in the sample.

8. The method of claim 7 further comprising amplifying the nucleic acids of the sample prior to hybridization.

9. The method of claim 7 wherein the composition is attached to a substrate.

10. The method of claim 7 wherein the cDNA is differentially expressed when compared with the standard and diagnostic of a cancer of the immune system.

11. A method of using a cDNA to screen a plurality of molecules or compounds, the method comprising:

a) combining the cDNA of claim 1 with a plurality of molecules or compounds under conditions to allow specific binding; and

b) detecting specific binding, thereby identifying a molecule or compound which specifically binds the cDNA.

12. The method of claim 11 wherein the molecules or compounds are selected from DNA molecules, RNA molecules, peptide nucleic acids, artificial chromosome constructions, peptides, transcription factors, repressors, and regulatory molecules.

13. A purified protein or a portion thereof selected from:

a) an amino acid sequence of SEQ ID NO:1;

- b) an antigenic epitope of SEQ ID NO:1; and
- c) a biologically active portion of SEQ ID NO:1.

14. A composition comprising the protein of claim 13.

15. A method for using a protein to screen a plurality of molecules or compounds to identify at least one ligand, the method comprising:

- a) combining the protein of claim 13 with the molecules or compounds under conditions to allow specific binding; and
- b) detecting specific binding, thereby identifying a ligand which specifically binds the protein.

16. The method of claim 15 wherein the molecules or compounds are selected from DNA molecules, RNA molecules, peptide nucleic acids, peptides, proteins, mimetics, agonists, antagonists, antibodies, immunoglobulins, inhibitors, and drugs.

17. A method of using a protein to prepare and purify antibodies comprising:

- a) immunizing a animal with the protein of claim 15 under conditions to elicit an antibody response;
- b) isolating animal antibodies;
- c) attaching the protein to a substrate;
- d) contacting the substrate with isolated antibodies under conditions to allow specific binding to the protein;
- e) dissociating the antibodies from the protein, thereby obtaining purified antibodies.

18. An antibody produced by the method of claim 17.

19. A method for using an antibody to diagnose conditions or diseases associated with expression of a protein, the method comprising:

- a) combining the antibody of claim 18 with a sample, thereby forming antibody:protein complexes; and
- b) comparing complex formation with a standard, wherein the comparison indicates expression of the protein in the sample.

20. The method of claim 19 wherein expression is diagnostic of a cancer of the immune system.